



## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

[FWS-R2-ES-2020-N079; FXES1113020000-201-FF02ENEH00]

### Endangered and Threatened Wildlife and Plants; Draft Recovery Plan for Texas Hornshell

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of availability; request for comment.

**SUMMARY:** We, the U.S. Fish and Wildlife Service, announce the availability of our draft recovery plan for Texas hornshell, a medium sized freshwater mussel that is listed as endangered under the Endangered Species Act. This species is native to the Rio Grande drainage in Texas, New Mexico, and Mexico. We provide this notice to seek comments from the public and Federal, Tribal, State, and local governments.

**DATES:** To ensure consideration, we must receive written comments on or before

[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. However, we will accept information about any species at any time.

**ADDRESSES:** *Reviewing document:* You may obtain a copy of the draft recovery plan, the recovery implementation strategy, and the species status assessment by any one of the following methods:

- *Internet:* Download a copy at

<https://ecos.fws.gov/ecp0/profile/speciesProfile?sId=919> or

<https://www.fws.gov/southwest/es/TexasCoastal/>.

- *U.S. mail:* Send a request to U.S. Fish and Wildlife Service, Texas Coastal

Ecological Services Field Office, 17629 El Camino Real, #211, Houston, TX

77058.

- *Telephone:* 281-286-8282.

*Submitting comments:* Submit your comments on the draft recovery plan in writing by any one of the following methods:

- *U.S. mail:* Project Leader, at the above U.S. mail address;
- *Email:* [houstonesfo@fws.gov](mailto:houstonesfo@fws.gov).

For additional information about submitting comments, see **Request for Public Comments and Public Availability of Comments under SUPPLEMENTARY INFORMATION.**

**FOR FURTHER INFORMATION CONTACT:** Chuck Ardizzone, Field Supervisor, at the above address and phone number, or by email at [houstonesfo@fws.gov](mailto:houstonesfo@fws.gov). Individuals who are hearing or speech impaired may call the Federal Relay Service at 1-800-877-8339 for TTY assistance.

**SUPPLEMENTARY INFORMATION:** We, the U.S. Fish and Wildlife Service, announce the availability of our draft recovery plan for Texas hornshell (*Popenaias popeii*), a freshwater mussel species listed as endangered under the Endangered Species Act, as amended (ESA; 16 U.S.C. 1531 *et seq.*). We request review and comment on this plan from local, State, and Federal agencies; Tribes; and the public. We will also accept any new information on the status of Texas hornshell throughout the species' range to assist in finalizing the recovery plan.

Texas hornshell is a medium-sized freshwater mussel species native to the Rio Grande drainage in Texas, New Mexico, and Mexico. Currently, five known populations of Texas hornshell remain in the United States: Black River (Eddy County, New Mexico), Pecos River (Val Verde County, Texas), Devils River (Val Verde County, Texas), Lower Canyons of the Rio Grande (Brewster and Terrell Counties, Texas), and Lower Rio Grande near Laredo (Webb County, Texas). After the species was listed, a small population was discovered in the confluence of Rio San Diego in Mexico. The draft recovery plan includes specific recovery objectives and criteria that, when achieved,

will enable us to consider removing the Texas hornshell from the Federal List of Endangered and Threatened Wildlife (List).

## **Background**

Recovery of endangered or threatened animals and plants to the point at which they are again secure, self-sustaining members of their ecosystems is a primary goal of the ESA and our endangered species program. Recovery means improvement of the status of listed species to the point at which listing is no longer appropriate under the criteria set out in section 4(a)(1) of the ESA. The ESA requires the development of recovery plans for listed species, unless such a plan would not promote the conservation of a particular species.

We used a streamlined approach to recovery planning and implementation by first conducting a species status assessment (SSA) of Texas hornshell (Service 2018). An SSA is a comprehensive analysis of the species' needs, current condition, threats, and future viability. The information in the SSA provides the biological background, a threats assessment, and a basis for a strategy for recovery of Texas hornshell. We then used this information to prepare an abbreviated draft recovery plan for Texas hornshell that includes prioritized recovery actions, criteria for reclassifying the species from endangered to threatened, criteria for removing the species from the List, and the estimated time and cost to recovery.

## **Summary of Species Information**

We published the final rule to list the Texas hornshell as endangered (83 FR 5720) under the ESA on February 9, 2018. The Texas hornshell historically ranged throughout the Rio Grande drainage in the United States (New Mexico and Texas) and Mexico. Overall distribution has declined significantly, with the species currently occupying approximately 15 percent of its historical range in the United States. The resulting remnant stream populations occupy relatively shorter reaches compared to

presumed historical stream populations, and they are isolated from one another primarily by reservoirs and unsuitable water quality (i.e., saline waters). There are five known populations within the species' historical range in the United States (Black River, Lower Pecos River, Rio Grande – Lower Canyons, Rio Grande – Laredo, and Devils River), and one in Mexico (Rio San Diego).

Texas hornshell need seams of fine sediment in crevices, undercut riverbanks, travertine shelves, and large boulders in riverine ecosystems with flowing water and periodic cleansing flows to keep the substrate free of excess fine sediment accumulation. They need water quality parameters to be within a suitable range (Randklev et al. 2017, p. 5) (i.e., dissolved oxygen above 3 milligrams/liter (mg/L), salinity below 0.9 parts per thousand, and ammonia below 0.7 mg/L (Sparks and Strayer 1998, p. 132; Augspurger et al. 2003, p. 2574; Augspurger et al. 2007, p. 2025; Carman 2007, p. 6)), and phytoplankton and bacteria as food. Finally, Texas hornshell need host fishes to be present during times of spawning.

The factors influencing the current and future health of populations include increased fine sediment, changes in water quality, loss of flowing water, and barriers to fish movement. These influences pose the largest risks to the future viability of this species and are primarily related to habitat changes such as the accretion of fine sediments, low water flows, and poor water quality. Furthermore, each of these factors is exacerbated by changing climatic conditions.

### **Recovery Plan Goals**

The objective of a recovery plan is to provide a framework for the recovery of a species so that protection under the ESA is no longer necessary. A recovery plan includes scientific information about the species and provides criteria and actions necessary for us to be able to reclassify the species to threatened status or remove it from the List. Recovery plans help guide our recovery efforts by describing actions we

consider necessary for the species' conservation and by estimating time and costs for implementing needed recovery measures.

The recovery strategy for the Texas hornshell involves stemming any further range contraction in extant stream populations, restoring and managing watersheds and stream habitat to support additional resilient stream populations, and increasing redundancy and representation within those stream populations. The recovery strategy primarily focuses on habitat restoration and preservation, and is based on an increased understanding of the relationship of Texas hornshell life history requirements within the physical, chemical, and ecological conditions of their environments. Information on this species and its habitats (e.g. population dynamics, alterations in stream flow, and/or responses to identified threats) is important for providing for future science-based management decisions and conservation actions. Implementation of the recovery plan will necessitate adaptive management strategies to use the most up-to-date information as it becomes available.

Texas hornshell recovery will involve cooperation among Federal, State, and local agencies, private landowners, academia, and other stakeholders. Therefore, the success of the recovery strategy presented below will rely heavily on the implementation of recovery actions conducted by, and through coordination with, our conservation partners in Texas, New Mexico, and Mexico.

The recovery objectives of this plan are to ensure long-term viability of the Texas hornshell by stabilizing and protecting existing and new Texas hornshell stream populations, host fish populations, and stream population and habitat connectivity, and restoring and enhancing the habitats and watersheds necessary to support resilient Texas hornshell stream populations.

The criteria for removing the species from the List are based on the following:

- Protect and expand existing populations and establish at least one additional

population so that there are at least seven stream populations (four with high resiliency and three with moderate to high resiliency).

- Each of these populations should exhibit evidence of recruitment, persistence, and positive or stable population trends over six generations (90 years).
- Ensure there are adequate stream flows and habitat features supporting both the Texas hornshell and its host fishes, within each of the populations.
- Ensure surface and ground water quality through compliance with water quality standards and implementation of water quality controls within each of the populations.
- Increase connectivity by incorporating fish passages and removal of anthropogenic barriers within each population to allow for the free movement of all life stages of Texas hornshell host fishes.

Recovery of these species through implementation of recovery actions is estimated to occur in 2110; total costs for all partners are estimated at approximately \$783 million over the next 90 years.

### **Request for Public Comments**

Section 4(f) of the ESA requires us to provide public notice and an opportunity for public review and comment during recovery plan development. It is also our policy to request peer review of recovery plans (July 1, 1994; 59 FR 34270). In an appendix to the final recovery plan, we will summarize and respond to the issues raised by the public and peer reviewers. Comments may or may not result in changes to the recovery plan; comments regarding recovery plan implementation will be forwarded as appropriate to Federal or other entities so that they can be taken into account during the course of implementation of recovery actions. Responses to individual commenters will not be provided, but we will provide a summary of how we addressed substantive comments in an appendix to the final recovery plan.

We invite written comments on this draft recovery plan. In particular, we are interested in additional information regarding the current threats to the species, ongoing beneficial management efforts, and the costs associated with implementing the recommended recovery actions. The species status assessment and recovery implementation strategy are accessible as supporting documents for the draft recovery plan, but we are not seeking comments on those documents.

### **Public Availability of Comments**

All comments received, including names and addresses, will become part of the administrative record and will be available to the public. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—will be publicly available. If you submit a hard copy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. Comments and materials we receive will be available, by appointment, for public inspection during normal business hours at our office (see **ADDRESSES**).

### **Authority**

We developed our draft recovery plan and publish this notice under the authority of section 4(f) of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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Amy L. Lueders,  
*Regional Director, Southwest Region,  
U.S. Fish and Wildlife Service.*

